

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A bonded structure comprising:
a first structure which is a carbon nanotube-based structure including a carbon nanotube
and a polymer layer wrapping a rounded surface thereof; ~~and~~
a second structure bonded with said carbon nanotube-based structure; and
a bonding material between said polymer and said second structure to be bonded
therewith,
wherein said carbon nanotube-based structure and said second structure are bonded via
said polymer.

2. (Currently Amended) A bonded structure comprising:
a first structure which is a carbon nanotube-based structure including a carbon nanotube
and a polymer wound around a rounded surface thereof; ~~and~~
a second structure bonded with said carbon nanotube-based structure; and
a bonding material between said polymer and said second structure to be bonded
therewith,
wherein said carbon nanotube-based structure and said second structure are bonded via
said polymer.

Claims 3 through 6. (Cancelled)

7. (Currently Amended) The bonded structure as set forth in Claim 5 1, wherein said bonding material comprises a set of molecules with a specific interaction.

8. (Currently Amended) The bonded structure as set forth in Claim 6 2, wherein said bonding material comprises a set of molecules with a specific interaction.

9. (Original) The bonded structure as set forth in Claim 7, wherein said set of molecules with a specific interaction includes a combination of a ligand and a receptor, or a combination of an antigen and an antibody.

10. (Original) The bonded structure as set forth in Claim 8, wherein said set of molecules with a specific interaction includes a combination of a ligand and a receptor, or a combination of an antigen and an antibody.

11. (Currently Amended) ~~The bonded structure set forth in Claim 1~~ A bonded structure comprising:
a first structure which is a carbon nanotube-based structure including a carbon nanotube and a polymer layer wrapping a rounded surface thereof; and
a second structure bonded with said carbon nanotube-based structure, wherein said polymer includes a polypeptide.

12. (Currently Amended) ~~The bonded structure set forth in Claim 2~~ A bonded structure comprising:

a first structure which is a carbon nanotube-based structure including a carbon nanotube and a polymer wound around a rounded surface thereof; and
a second structure bonded with said carbon nanotube-based structure, wherein said polymer includes a polypeptide.

13. (Currently Amended) ~~The bonded structure set forth in Claim 1~~ A bonded structure comprising:

a first structure which is a carbon nanotube-based structure including a carbon nanotube and a polymer layer wrapping a rounded surface thereof; and
a second structure bonded with said carbon nanotube-based structure, wherein said second structure is a base member.

14. (Currently Amended) ~~The bonded structure set forth in Claim 2~~ A bonded structure comprising:

a first structure which is a carbon nanotube-based structure including a carbon nanotube and a polymer wound around a rounded surface thereof; and
a second structure bonded with said carbon nanotube-based structure, wherein said second structure is a base member.

15. (Currently Amended) ~~The bonded structure set forth in Claim 1~~ A bonded structure comprising:

a first structure which is a carbon nanotube-based structure including a carbon nanotube and a polymer layer wrapping a rounded surface thereof; and

a second structure bonded with said carbon nanotube-based structure, wherein said second structure is a metal film.

16. (Currently Amended) ~~The bonded structure set forth in Claim 2~~ A bonded structure comprising:

a first structure which is a carbon nanotube-based structure including a carbon nanotube and a polymer wound around a rounded surface thereof; and

a second structure bonded with said carbon nanotube-based structure, wherein said second structure is a metal film.

17. (Withdrawn) The bonded structure as set forth in Claim 1, wherein said second structure comprises a carbon nanotube.

18. (Withdrawn) The bonded structure as set forth in Claim 2, wherein said second structure comprises a carbon nanotube.

19. (Withdrawn) The bonded structure as set forth in Claim 17, wherein said carbon nanotube comprised in said second structure bonded with said carbon nanotube-based structure comprises a polymer layer wrapping a rounded surface thereof.

20. (Withdrawn) The bonded structure as set forth in Claim 18, wherein said carbon nanotube comprised in said second structure bonded with said carbon nanotube-based structure comprises a polymer layer wrapping a rounded surface thereof.

21. (Withdrawn) The bonded structure as set forth in Claim 17, wherein said carbon nanotube comprised in said second structure bonded with said carbon nanotube-based structure includes a polymer wound around a rounded surface thereof.

22. (Withdrawn) The bonded structure as set forth in Claim 18, wherein said carbon nanotube comprised in said second structure bonded with said carbon nanotube-based structure includes a polymer wound around a rounded surface thereof.

23. (Withdrawn) An interconnection comprising:
a plurality of carbon nanotube-based structures joined to one another respectively
including a carbon nanotube and a polymer layer wrapping a rounded surface thereof.

24. (Withdrawn) An interconnection comprising:
a plurality of carbon nanotube-based structures joined to one another respectively
including a carbon nanotube and a polymer wound around a rounded surface thereof.

25. (Withdrawn) The interconnection as set forth in Claim 23, wherein said polymer includes a polypeptide.

26. (Withdrawn) The interconnection as set forth in Claim 24, wherein said polymer includes a polypeptide.

27. (Withdrawn) A single electron transistor comprising:
a carbon nanotube-based structure including a carbon nanotube and a polymer layer wrapping a rounded surface thereof;
a source electrode bonded with said carbon nanotube-based structure via said polymer;
a drain electrode bonded with said carbon nanotube-based structure via said polymer; and
a gate electrode of applying a voltage to said carbon nanotube.

28. (Withdrawn) A single electron transistor comprising:
a carbon nanotube-based structure including a carbon nanotube and a polymer wound around a rounded surface thereof;
a source electrode bonded with said carbon nanotube-based structure via said polymer;
a drain electrode bonded with said carbon nanotube-based structure via said polymer; and
a gate electrode of applying a voltage to said carbon nanotube.

29. (Withdrawn) The single electron transistor as set forth in Claim 27, wherein said polymer includes a polypeptide.

30. (Withdrawn) The single electron transistor as set forth in Claim 28, wherein said polymer includes a polypeptide.

31. (Withdrawn) A capacitor comprising:
a carbon nanotube-based structure including a carbon nanotube and a polymer layer wrapping a rounded surface thereof; and

a conductive member bonded to said polymer directly or via a bonding material.

32. (Withdrawn) A capacitor comprising:

a carbon nanotube-based structure including a carbon nanotube and a polymer wound around a rounded surface thereof; and

a conductive member bonded to said polymer directly or via a bonding material.

33. (Withdrawn) The capacitor as set forth in Claim 31, wherein said polymer includes a polypeptide.

34. (Withdrawn) The capacitor as set forth in Claim 32, wherein said polymer includes a polypeptide.

35. (Withdrawn) The capacitor as set forth in Claim 31, wherein said bonding material comprises a set of molecules with a specific interaction.

36. (Withdrawn) The capacitor as set forth in Claim 32, wherein said bonding material comprises a set of molecules with a specific interaction.

37. (Withdrawn) The capacitor as set forth in Claim 35, wherein said set of molecules with a specific interaction includes a combination of a ligand and a receptor, or a combination of an antigen and an antibody.

38. (Withdrawn) The capacitor as set forth in Claim 36, wherein said set of molecules with a specific interaction includes a combination of a ligand and a receptor, or a combination of an antigen and an antibody.